Frrd Rod

Dart Aerospace Ltd.

Date: Thursday, 22/01/2009 2:05:20 PM
User: Julie Dawson

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	**Drawing Name**	: WHEEL SHAFT
Job Number	: 45084		
Estimate Number	: 10449		
P.O. Number	:	**Part Number**	: D33341
This Issue	: 22/01/2009 **S.O. No.** :	**Drawing Number**	: D3334 REV. C
Prsht Rev.	: NC	**Project Number**	: N/A
First Issue	: / / **Type** : MACHINED PARTS	**Drawing Revision**	: C
Previous Run	: 44363	**Material**	:
Written By	:	**Due Date**	: 05/02/2009 **Qty:** 10 **Um:** Each
Checked & Approved By	: JLD 09.01.22		

Comment : Est: B 05.03.02 Revised material; Added Powder Coat KJ/JLM
Est Rev:C Now on Doosan Lathe 08-03-06 JLM Verified By:EC
Est Rev:D Now Rev C 08-05-14 JLM Verified By:DD

Additional Product

Job Number:

Seq. #:	Machine Or Operation:	Description :
1.0	M4140HR3500	4140 RD bar 3.500

Comment: Qty.: 0.6563 f(s)/Unit Total : 6.5630 f(s)
4140 HEAT TREATED BAR
Material: AISI 4140 or ASTM A304-02/A-434-BC/A193-03-Grade-B7/A29-03/A322-91 or UNS# G41400
(M4140H-R3.500) Batch: M19877 — 09/02/09

Seq. #:	Machine Or Operation:	Description :
2.0	BAND SAW	BAND SAW

Comment: BAND SAW
1- Cut blanks: Ø3.500" Bar to 7.750" long — 09/02/09 (8)

Seq. #:	Machine Or Operation:	Description :
3.0	DOOSAN LATHE	DOOSAN LATHE

Comment: DOOSAN LATHE
1- Turn and Mill as per Folio FA492 and Dwg D3334
2- Deburr
Test Thread with Test Nut for every part — 09/02/09

Seq. #:	Machine Or Operation:	Description :
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE

Comment: INSPECT PARTS AS THEY COME OFF MACHINE — 09/02/09 (8)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________________ **PAR #:** _______ **Fault Category:** __________________ **NCR:** Yes No **DQA:** _____ **Date:** _________

Resolution: ____________________ **Disposition:** ____________________ **QA: N/C Closed:** __________ **Date:** _________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
			Corrective Action Section B					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector

NOTE: Date & initial all entries

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Drawing Name: WHEEL SHAFT

Job Number: 45084
Part Number: D33341

Job Number:

Seq. #:	Machine Or Operation:	Description :
5.0	QC8	SECOND CHECK

Comment: SECOND CHECK   J.L 08/02/10

6.0	POWDER COATING	POWDER COATING

11102391

Comment: POWDER COATING
Powder Coat Fire Red (Ref: 4.3.5.10) as per QSI 005 4.3
Mask thread and bearing surface

START TIME: 8:15AM
OVEN TEMPERATURE: 320°F
FINISH TIME: 8:45AM   07-02-10 (8)

7.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION

(8)

Comment: INSPECT POWDER COAT   09-02-18

8.0	PACKAGING 1	PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1
Identify and Stock
Location:_______   ST477   QC 9/2/18 (8)

9.0	QC21	FINAL INSPECTION/W/O RELEASE

09/02/2018

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion   MF 09-02-18

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ____________ **PAR #:** ________ **Fault Category:** ____________ **NCR:** Yes No **DQA:** ______ **Date:** __________

Resolution: ____________ **Disposition:** ____________ **QA: N/C Closed:** ____________ **Date:** __________

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	45084
Description: Wheel Shaft	**Part Number:**	D3334-1
Inspection Dwg: D3334 **Rev:** C		**Page 1 of 1**

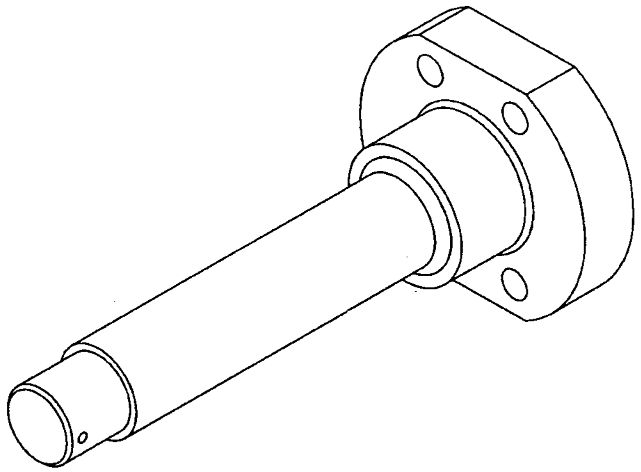
FIRST ARTICLE INSPECTION CHECKLIST

[X] **First Article** [ ] **Prototype**

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.94	+/-0.030	.94				
0.200	+/-0.010	.200				
Ø0.129	+0.005/-0.000	.129				
4.740	+0.000/-0.030	4.740				
1.04	+/-0.030	1.04				
Ø1.750	+/-0.010	1.750				
0.750	+/-0.010	.750				
1.180	+0.000/-0.002	1.179				
2.250	+/-0.005	2.250				
1.125	+/-0.010	1.125				
3.060	+/-0.010	3.060				
Ø0.386	+0.006/-0.001	.3865				
1.300	+/-0.005	1.300				
Ø3.470	+/-0.010	3.470				

Measured by:	[signature]	Audited by:	[signature]	Prototype Approval:	N/A
Date:	09/02/09	Date:	09/02/10	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	05.04.26	New Issue	KJ/JLM	
B	08.05.06	Tolerance for dimension Ø0.386 revised	KJ/DD	
C	08.05.14	Dimensions updated per Dwg Rev C	KJ/JLM [initials]	[initials]



D3334-1 WHEEL SHAFT

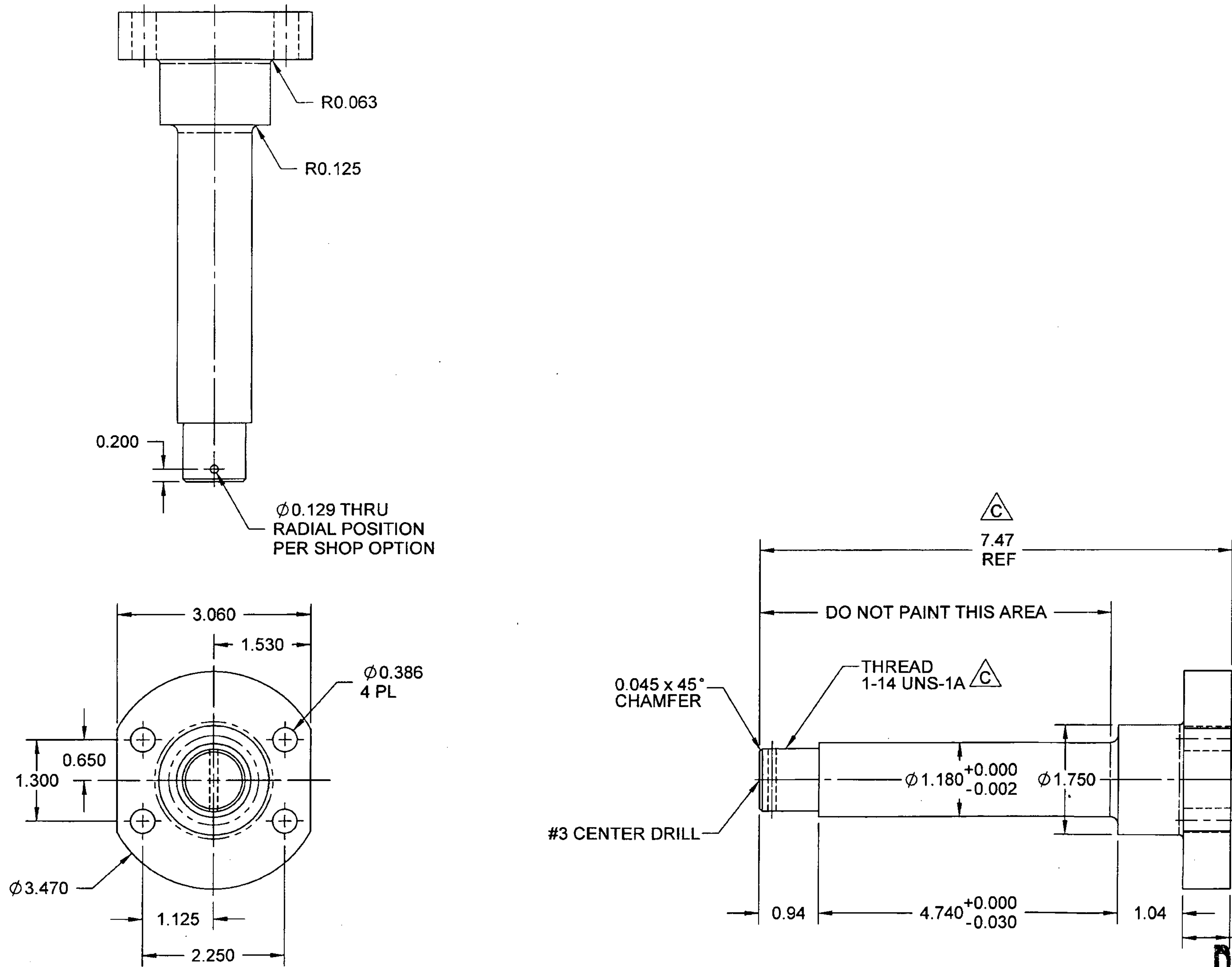
RELEASED 08-05-13

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 45084

NOTES:
1) MATERIAL: AISI -4140 OR ASTM A304-02/ A-434-BC/ A193-03-GRADE-B7/ A29-03/ A322-91
OR: UNS#-G41400
(REF. DART SPEC. M4140H-R3.500)
2) FINISH: POWDER COAT COLOUR FIRE RED (4.3.5.10) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3334-1" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 4.03 lbs

REV.	DESCRIPTION	BY	DATE
C	INCORPORATED B1 (Ø3.470 WAS 3.500).REFORMAT TO CURRENT STANDARDS. TOP VIEW ADDED. ZN C3-2 7.47 REF WAS 7.468. ZN B3-2 THREAD CALL OUT WAS 1-14 UNF. ZN C5-2 COTTER PIN HOLE LOCATION (RADIAL) CHANGED TO SHOP OPTION.	AJS	08.05.12
B	REDESIGN TO FIT NEW WHEEL ASSY.	MB	05.02.18
A	NEW ISSUE	MB	04.12.16

DESIGN	MB	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	AJS	
CHECKED		DRAWING NO. D3334 — REV. C — SHEET 1 OF 2
MFG. APPR.		
APPROVED		TITLE WHEEL SHAFT — SCALE NTS
DE APPR.	N/A	
DATE	08.05.12	



D3334-1 WHEEL SHAFT

DESIGN	MB	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	AJS	
CHECKED		DRAWING NO. D3334 — REV. C — SHEET 2 OF 2
MFG. APPR.		
APPROVED		TITLE WHEEL SHAFT — SCALE NTS
DE APPR.	N/A	
DATE	08.05.12	